

Patents

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: )  
QIN ET AL. ) Art Unit: 1771  
Serial No.: 09/280,791 ) Examiner: Pratt, C.  
Filed: March 26, 1999 ) M&G No.: 60086.0058US01  
For: SPUNLACED POLY(VINYL ALCOHOL) FABRICS

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**DECLARATION UNDER 37 C.F.R. §1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

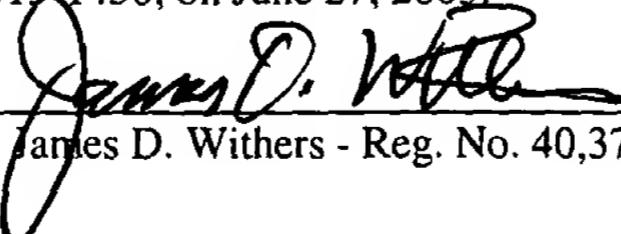
I, the undersigned declarant, hereby declare and state that:

- (1) This Declaration is submitted as evidence that the claimed spunlaced webs and fabrics exhibited unexpected results relating to superior bursting strength alone, and superior bursting strength in combination with an unexpectedly high air permeability.
- (2) I am one of the inventors of the above-identified application.
- (3) I reside at the following address:

Dr. Baosheng Lee  
3990 Bridlewood Drive  
Duluth, GA 30136

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 27, 2003.

  
James D. Withers - Reg. No. 40,376

(4) Prior to the present invention, spunlaced fabrics were commercially available from Johnson & Johnson and Maxim Medical. I do not remember the trade designation of the Johnson & Johnson product. The Maxim Medical product was sold under the trade designation SONTARA®.

(5) Spunlaced fabrics available from Johnson & Johnson and Maxim Medical having a basis weight of about 65 grams per square meter (gsm) ( $\pm 5$  gsm) have bursting strengths and air permeability values as shown below and in Example 3 of the 09/280,791 specification (page 10, lines 25-32):

Property	Test Method	J&J Spunlaced Fabric	SONTARA® Spunlaced Fabric
Bursting strength (psi)	ASTM D-3786-87	34.3	24.6
Air Permeability (CFM/sq. ft.)	ASTM D-737-96	75.7	63.7

(6) Spunlaced webs or fabrics of the present invention having substantially identical basis weights (about  $65 \pm 5$  gsm) and consisting essentially of 100% poly(vinyl alcohol) fibers have the following bursting strengths and air permeability values (see Example 1 of the 09/280,791 specification (pages 8-9):

Property	Test Method	Spunlaced Web or Fabric recited in Claims 34, 38 and 46
Bursting strength (psi)	ASTM D-3786-87	89.9+
Air Permeability (CFM/sq. ft.)	ASTM D-737-96	188.2+

(7) The spunlaced webs or fabrics described in paragraph (6) above also have the following properties: (a) the webs or fabrics are nonwoven; (b) binding adhesives are substantially absent from the webs or fabrics; (c) heat fusion is substantially absent from the webs or fabrics; (d) needlepunching is substantially absent from the webs or fabrics; (e) stitchbonding is substantially absent from the webs or fabrics; and (f) the poly(vinyl alcohol) has a degree of polymerization of from about 300 to about 5000.

(8) I was unexpectedly surprised to discover that the bursting strength of the spunlaced webs or fabrics consisting essentially of poly(vinyl alcohol) fibers were as much as three times higher than the bursting strength of the Johnson & Johnson product and the Maxim Medical product.

(9) Now knowing what I know about spunlaced webs or fabrics of the present invention consisting essentially of poly(vinyl alcohol) fibers having a basis weight of  $65 \pm 5$  gsm, I would expect spunlaced webs or fabrics of the present invention consisting essentially of poly(vinyl alcohol) fibers and having basis weights other than  $65 \pm 5$  gsm, such as a basis weight range of from about 20 gsm to about 400 gsm, to have a greater bursting strength and air permeability when compared to the Johnson & Johnson product or the Maxim Medical product of similar basis weight.

(10) I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that the statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified application or any patent issuing therefrom.

Declaration Under 37 C.F.R. § 1.132  
Serial No. 09/280,791

6/27/03

Date

Baosheng Lee

Dr. Baosheng Lee

Attorney No.: 60086.0058US01



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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, the undersigned declarant, hereby declare and state that:

(1) This Declaration is submitted as evidence that the claimed spunlaced webs and fabrics have experienced commercial success.

(2) I am the Chief Operating Officer of Microtek Medical, Inc., the assignee of the present application.

(3) I reside at the following address:

J. Michael Mabry  
1610 Rising Mist Lane  
Cumming, GA 30041

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 27, 2003.

James D. Withers - Reg. No. 40 376

Declaration Under 37 C.F.R. § 1.132  
Serial No. 09/280,791

(4) Microtek Medical, Inc. sells spunlaced poly(vinyl alcohol) webs or fabrics as embodied in independent claims 34, 38 and 46 of the present patent application. The spunlaced poly(vinyl alcohol) webs or fabrics are primarily sold for use in the nuclear industry.

(5) The spunlaced poly(vinyl alcohol) webs or fabrics mentioned in paragraph (4) above consist essentially of 100% poly(vinyl alcohol) fibers, have a basis weight in the range of about 65 grams per square meter (gsm) ( $\pm 5$  gsm), and have the following properties: (a) the webs or fabrics are nonwoven; (b) binding adhesives are substantially absent from the webs or fabrics; (c) heat fusion is substantially absent from the webs or fabrics; (d) needlepunching is substantially absent from the webs or fabrics; (e) stitchbonding is substantially absent from the webs or fabrics; (f) the poly(vinyl alcohol) has a degree of polymerization of from about 300 to about 5000; and (g) the webs or fabrics have a bursting strength value as measured according to ASTM D3786-87 of greater than 50 psi.

(6) As of May 2003, Microtek Medical, Inc. has sold approximately \$2,786,000 of spunlaced poly(vinyl alcohol) webs or fabrics of the present patent application and as described in paragraphs (4) and (5) above for use in the nuclear industry alone.

(7) Sales of spunlaced poly(vinyl alcohol) webs or fabrics of the present patent application and as described in paragraphs (4) and (5) above for use in the nuclear industry have increased year-to-year as shown below:

Year	Sales Amount
2000	\$79,000
2001	\$198,000
2002	\$787,000
2003 (thru May)	\$1,719,000

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Serial No. 09/280,791

(8) Microtek Medical, Inc. had projected sales over the first six months of 2003 at about \$920,000 for spunlaced poly(vinyl alcohol) webs or fabrics as embodied in independent claims 34, 38 and 46 of the present patent application and as described in paragraphs (4) and (5) above. Actual sales over the first five months of 2003 are about \$1,719,000.

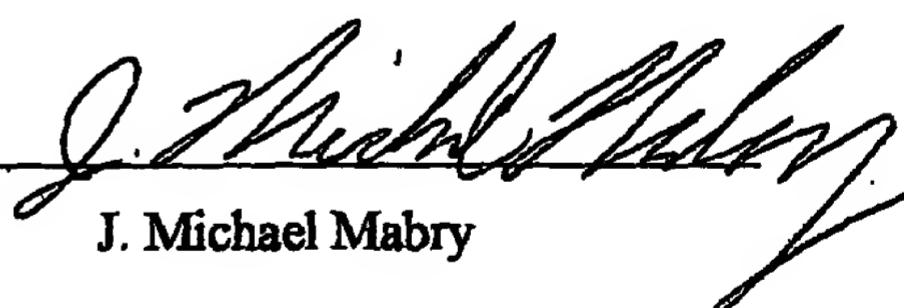
(9) Total 2003 sales for the claimed spunlaced webs and fabrics described in paragraphs (4) and (5) above are projected to be close to \$5,000,000.

(10) Forecasted sales for the claimed spunlaced webs and fabrics described in paragraphs (4) and (5) above over the upcoming three years are approximately: sales of \$6,000,000 to \$8,000,000 in 2004; sales of \$10,000,000 in 2005; and sales of \$12,000,000 in 2006.

(11) I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that the statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified application or any patent issuing therefrom.

6/27/03

Date

  
J. Michael Mabry

Attorney No.: 60086.0058US01